



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/766,934	01/30/2004	Yoshihiro Ochiai	018842.1288	3958
24735	7590	02/25/2008	EXAMINER	
BAKER BOTTS LLP			HAMO, PATRICK	
C/O INTELLECTUAL PROPERTY DEPARTMENT			ART UNIT	PAPER NUMBER
THE WARNER, SUITE 1300			3746	
1299 PENNSYLVANIA AVE, NW			NOTIFICATION DATE	
WASHINGTON, DC 20004-2400			DELIVERY MODE	
			02/25/2008	
			ELECTRONIC	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

usptocorrespondence@bakerbotts.com
darlene.hoskins@bakerbotts.com
oneka.davis@bakerbotts.com

Office Action Summary	Application No.	Applicant(s)	
	10/766,934	OCHIAI, YOSHIHIRO	
	Examiner	Art Unit	
	Patrick Hamo	3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 26 November 2007.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-16 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-16 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date _____ .	6) <input type="checkbox"/> Other: _____ .

DETAILED ACTION

This action is in response to amendments filed on November 26, 2007.

Information Disclosure Statement

The examiner acknowledged and appreciates clarification about the relationship between European Patent Publication No. EP 0997639 and German Patent Publication No. DE 69926464, and accepts the EP publication as a concise statement in English of the relevance of the German patent. The information disclosure statement (IDS) submitted on May 31, 2006 is duly being considered by the examiner.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5-9 and 11-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Ota et al., US Pat. No. 6,361,283.

Ota discloses a control valve system 50 of a variable displacement swash plate compressor for use in a heating and cooling air conditioner, comprising: a throttling valve (rod portion 82) provided in a refrigerating circuit; a constant differential pressure valve (between rod portions 83 and 84) arranged to open when a differential pressure

between upstream (P_c) and downstream (P_d) pressures of the throttling valve reaches a predetermined value, thereby introducing compressor discharge gas to a crank chamber; external information detecting means (35, 36, 37) for detecting external information (temperature, on/off), and a temperature sensor (34) for sensing the temperature of the evaporator (33) which represents the cooling load on the circuit (col. 6, II. 12-14); and control means (C) for determining an opening of the throttling valve based on the external information, wherein the throttling valve is an electromagnetic valve (solenoid, with, for example, coil 71) and integrally mounted to the constant differential pressure valve, wherein the constant differential pressure valve is arranged to introduce the compressor discharge gas 22 on the upstream side of the throttling valve into the crank chamber 5 (see fig. 2), wherein a discharge gas inflow chamber (between 57 and 54) is formed on the upstream side of the throttling valve, the compressor discharge gas in the discharge gas inflow chamber is introduced into the crank chamber (via conduit 27a and 28b), and the discharge gas inflow chamber has a plurality of circumferentially spaced inlets 57 directed tangential to a wall surface of the chamber, wherein the throttling valve has a pressure receiving portion (top portion of rod 82) that presses the throttling valve in a direction to be opened when it receives a downstream side pressure, and wherein the pressure receiving portion has the same area as that of a downstream-side pressure receiving surface (bottom portion of rod portion 82) of the throttling valve.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 4 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ota in view of Hayashi et al., US Pub. No. 2003/0031569.

Ota discloses all of the limitations substantially as claimed except for the following: a cutoff valve disposed on the downstream side of the throttling valve.

However, Hayashi teaches a variable displacement compressor with a cutoff or check valve 38 downstream of the discharge chamber 132 and control valve 41 that is urged to stop when the inclination angle of the swash plate 23 is at a minimum (in which case the air compressor is not operating), which stops the circulation of the refrigerant gas (p. 3, paragraph 38).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to have modified the variable displacement compressor of Ota with the check valve of Hayashi to stop a refrigerant circulation when the compressor is not operating.

Response to Amendment

Amendments to the specification have been received and are accepted.

Objections to the specification are duly withdrawn.

In view of the amendments to the claims, the rejections of claims 1-14 under 35 U.S.C. 112 are also withdrawn.

Response to Arguments

Applicant's arguments filed November 26, 2007 have been fully considered but they are not persuasive.

Applicant argues that Ota fails to disclose "a constant differential pressure valve arranged to open when a differential pressure between upstream and downstream pressures of the throttling valve reaches a predetermined value, thereby introducing compressor discharge gas to a crank chamber." However, examiner points out that, as asserted in the first office action and discussed above, the reference to Ota teaches exactly that, with the upstream pressure of the throttling valve 82 being equal to the crank chamber pressure P_c and the downstream pressure being equal to the discharge chamber pressure P_d . The examiner directs the applicant's attention to figure 2, where via passages 27a and 28a, the crank chamber pressure is connected to the upstream portion of throttle valve 82 and the discharge chamber pressure is connected to the downstream portion of the throttle valve, respectively.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PATRICK HAMO whose telephone number is (571)272-3492. The examiner can normally be reached on M-F 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon Kramer can be reached on 571-272-7118. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Devon C Kramer/
Supervisory Patent Examiner, Art
Unit 3683

PH